

Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

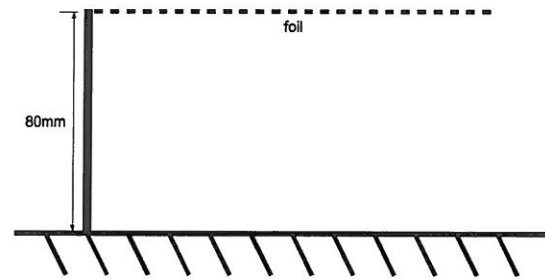
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

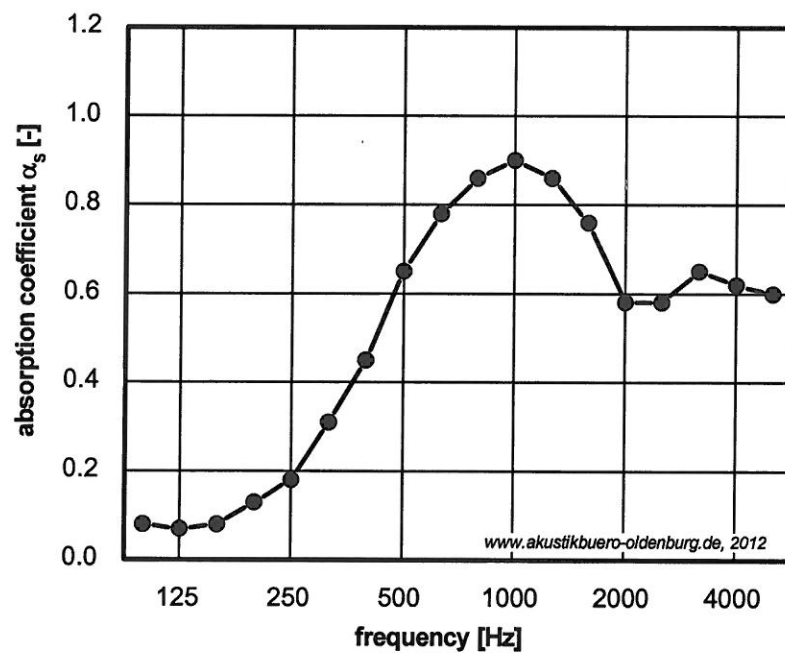
Assembly:

- BARRISOL® A15 Nanoperf
- 80 mm distance to the floor
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.08
125	0.07
160	0.08
200	0.13
250	0.18
315	0.31
400	0.45
500	0.65
630	0.78
800	0.86
1000	0.90
1250	0.86
1600	0.76
2000	0.58
2500	0.58
3150	0.65
4000	0.62
5000	0.60



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.10
250	0.20
500	0.65
1000	0.85
2000	0.65
4000	0.60

NRC = 0.60
SAA = 0.59
 $\alpha_w = 0.50$
Sound Absorption Class D

Rev. chamber: ITAP GmbH
Date: 20.02.2012
Volume: 200 m³
Specimen size: 12 m²
Temperature: 12°C
Humidity: 45 %



Akustikbüro Oldenburg

Dr. Christian Nocke

M01 - Report No. 2012/0069

Oldenburg, August 2nd, 2012

Signature:

Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

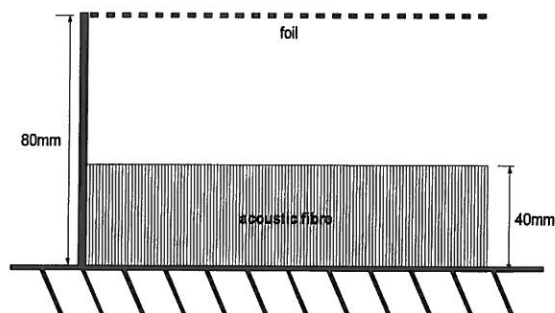
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

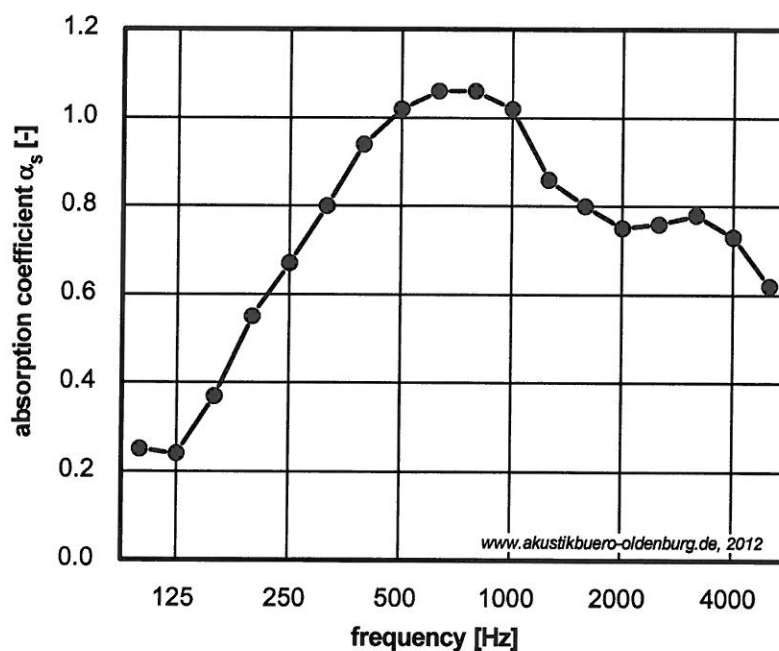
Assembly:

- BARRISOL® A15 Nanoperf
- 80 mm distance to the floor
- 40 mm acoustic fibre
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.25
125	0.24
160	0.37
200	0.55
250	0.67
315	0.80
400	0.94
500	1.02
630	1.06
800	1.06
1000	1.02
1250	0.86
1600	0.80
2000	0.75
2500	0.76
3150	0.78
4000	0.73
5000	0.62



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.30
250	0.65
500	1.00
1000	1.00
2000	0.75
4000	0.70

NRC = 0.85
SAA = 0.86
 $\alpha_w = 0.80$
Sound Absorption Class B

Rev. chamber: ITAP GmbH
Date: 20.02.2012
Volume: 200 m³
Specimen size: 12 m²
Temperature: 12°C
Humidity: 45 %



Akustikbüro Oldenburg

Dr. Christian Nocke

M04 - Report No. 2012/0069

Oldenburg, August 2nd, 2012

Signature:

Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

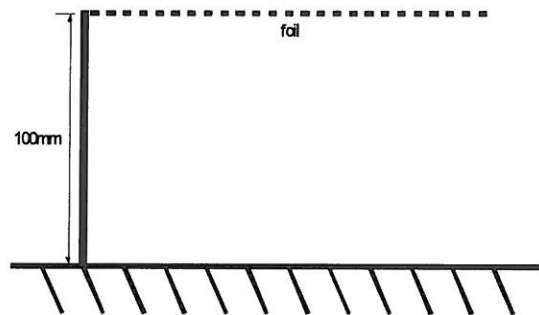
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

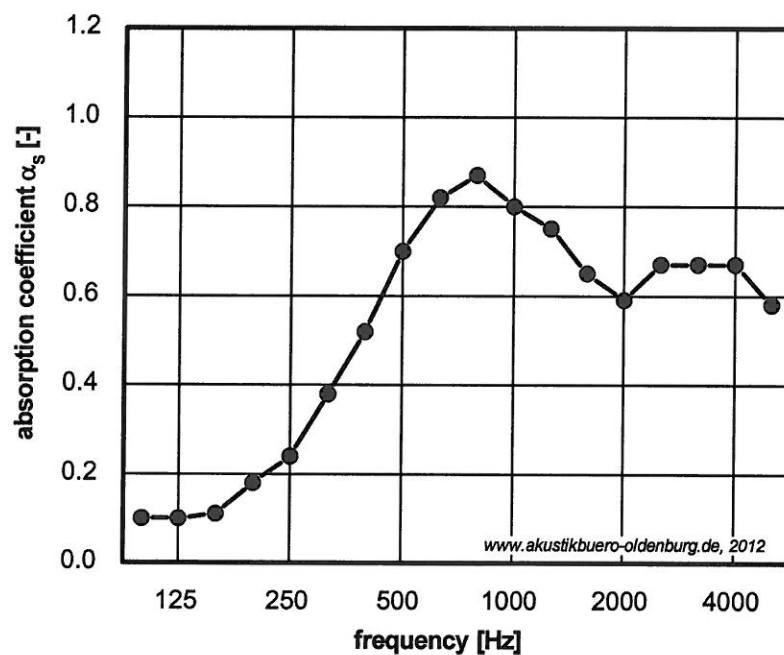
Assembly:

- BARRISOL® A15 Nanoperf
- 100 mm distance to the floor
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.10
125	0.10
160	0.11
200	0.18
250	0.24
315	0.38
400	0.52
500	0.70
630	0.82
800	0.87
1000	0.80
1250	0.75
1600	0.65
2000	0.59
2500	0.67
3150	0.67
4000	0.67
5000	0.58



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.10
250	0.25
500	0.70
1000	0.80
2000	0.65
4000	0.65

NRC = 0.60

SAA = 0.60

$\alpha_w = 0.55$

Sound Absorption Class D

Rev. chamber: ITAP GmbH

Date: 20.02.2012

Volume: 200 m³

Specimen size: 12 m²

Temperature: 12°C

Humidity: 45 %



Akustikbüro Oldenburg

Dr. Christian Nocke

M08 - Report No. 2012/0069

Oldenburg, August 2nd, 2012

Signature:

Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

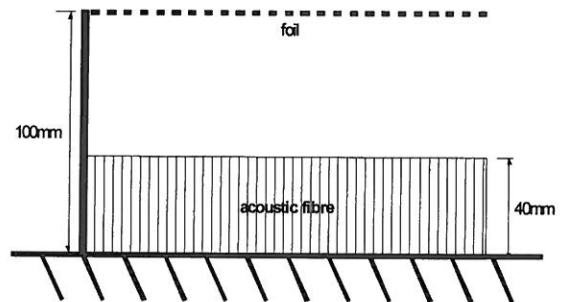
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

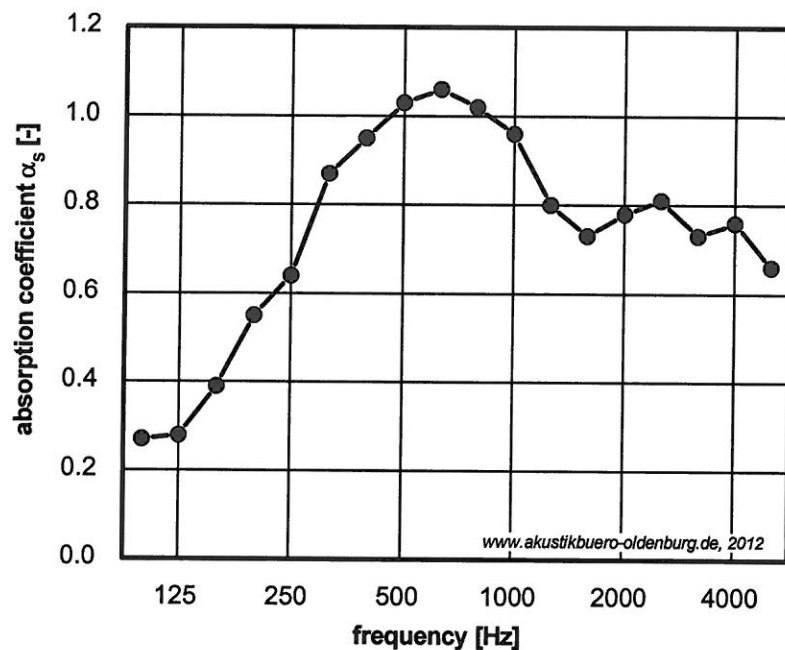
Assembly:

- BARRISOL® A15 Nanoperf
- 100 mm distance to the floor
- 40 mm acoustic fibre
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.27
125	0.28
160	0.39
200	0.55
250	0.64
315	0.87
400	0.95
500	1.03
630	1.06
800	1.02
1000	0.96
1250	0.80
1600	0.73
2000	0.78
2500	0.81
3150	0.73
4000	0.76
5000	0.66



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.30
250	0.70
500	1.00
1000	0.95
2000	0.80
4000	0.70

NRC = 0.85
 SAA = 0.85
 $\alpha_w = 0.85$
 Sound Absorption Class B

Rev. chamber: ITAP GmbH
 Date: 20.02.2012
 Volume: 200 m³
 Specimen size: 12 m²
 Temperature: 12°C
 Humidity: 45 %



Akustikbüro Oldenburg

Dr. Christian Nocke

M05 - Report No. 2012/0069

Oldenburg, August 2nd, 2012

Signature:

Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

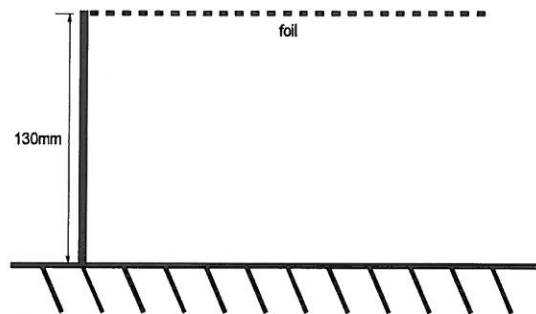
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

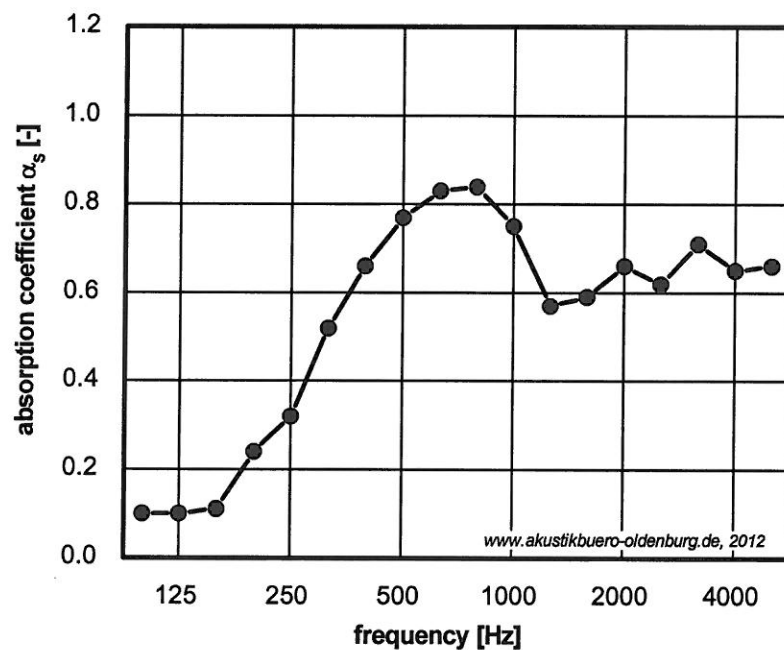
Assembly:

- BARRISOL® A15 Nanoperf
- 130 mm distance to the floor
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.10
125	0.10
160	0.11
200	0.24
250	0.32
315	0.52
400	0.66
500	0.77
630	0.83
800	0.84
1000	0.75
1250	0.57
1600	0.59
2000	0.66
2500	0.62
3150	0.71
4000	0.65
5000	0.66



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.10
250	0.35
500	0.75
1000	0.70
2000	0.65
4000	0.65

NRC = 0.60
SAA = 0.62
 $\alpha_w = 0.65$
Sound Absorption Class C

Rev. chamber: ITAP GmbH
Date: 20.02.2012
Volume: 200 m³
Specimen size: 12 m²
Temperature: 12°C
Humidity: 45 %



Akustikbüro Oldenburg

Dr. Christian Nocke

M09 - Report No. 2012/0069

Oldenburg, August 2nd, 2012

Signature:

Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

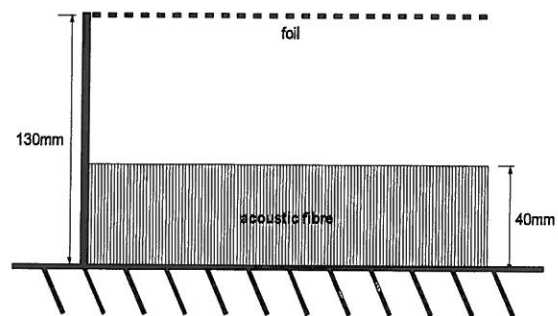
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

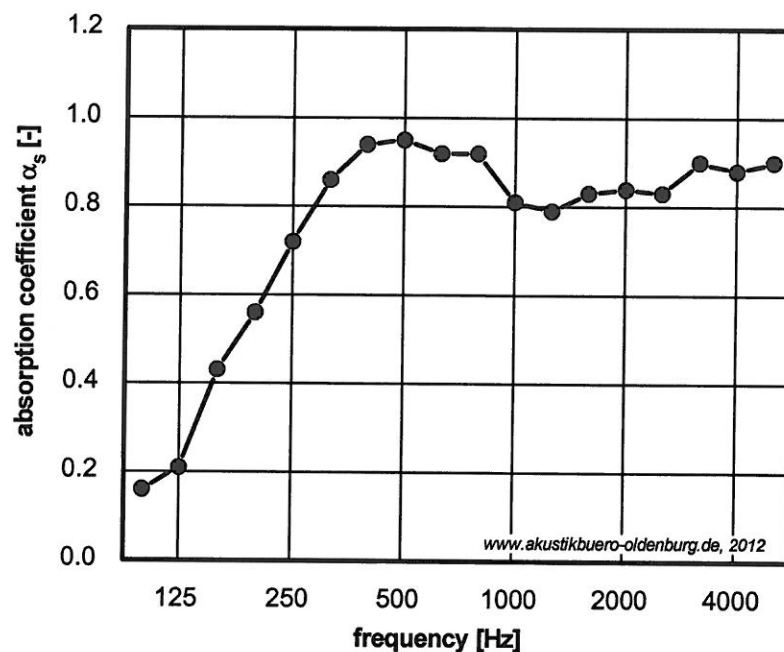
Assembly:

- BARRISOL® A15 Nanoperf
- 130 mm distance to the floor
- 40 mm acoustic fibre
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.16
125	0.21
160	0.43
200	0.56
250	0.72
315	0.86
400	0.94
500	0.95
630	0.92
800	0.92
1000	0.81
1250	0.79
1600	0.83
2000	0.84
2500	0.83
3150	0.90
4000	0.88
5000	0.90



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.25
250	0.70
500	0.95
1000	0.85
2000	0.85
4000	0.90

NRC = 0.85

SAA = 0.83

$\alpha_w = 0.90$

Sound Absorption Class A

Rev. chamber: ITAP GmbH

Date: 21.02.2012

Volume: 200 m³

Specimen size: 12 m²

Temperature: 12°C

Humidity: 55 %



Akustikbüro Oldenburg

Dr. Christian Nocke

M12 - Report No. 2012/0069

Oldenburg, August 2nd, 2012

Signature:

Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

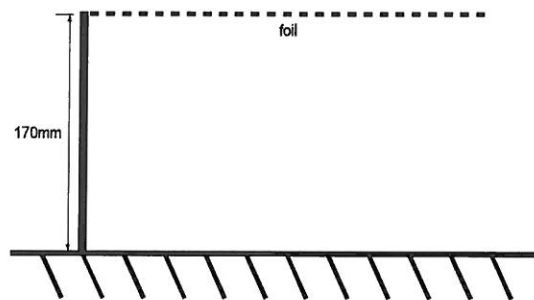
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

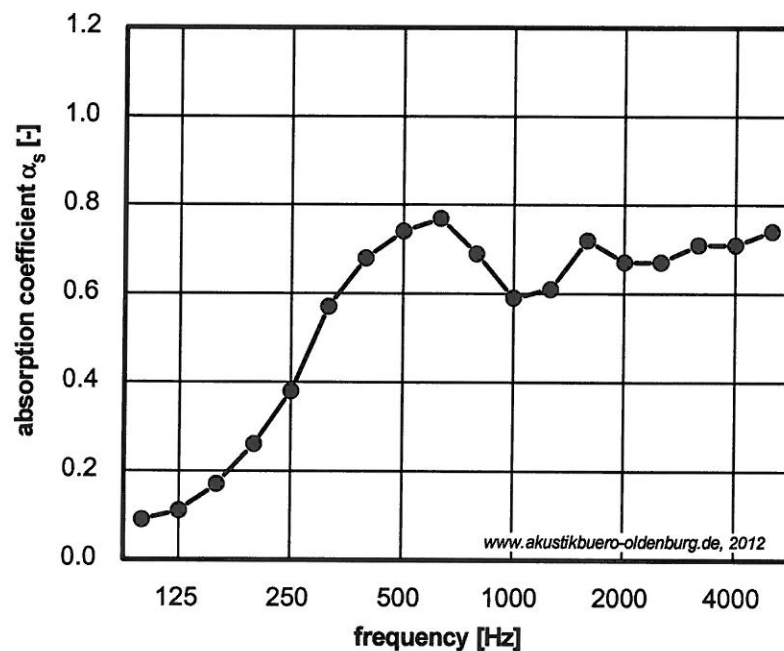
Assembly:

- BARRISOL® A15 Nanoperf
- 170 mm distance to the floor
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.09
125	0.11
160	0.17
200	0.26
250	0.38
315	0.57
400	0.68
500	0.74
630	0.77
800	0.69
1000	0.59
1250	0.61
1600	0.72
2000	0.67
2500	0.67
3150	0.71
4000	0.71
5000	0.74



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.10
250	0.40
500	0.75
1000	0.65
2000	0.70
4000	0.70

NRC = 0.60
SAA = 0.61
 $\alpha_w = 0.65$
Sound Absorption Class C

Rev. chamber: ITAP GmbH
Date: 21.02.2012
Volume: 200 m³
Specimen size: 12 m²
Temperature: 12°C
Humidity: 55 %



Akustikbüro Oldenburg

Dr. Christian Nocke

M16 - Report No. 2012/0069

Oldenburg, August 2nd, 2012

Signature:

Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

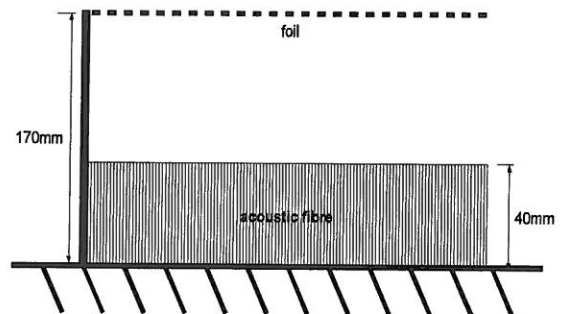
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

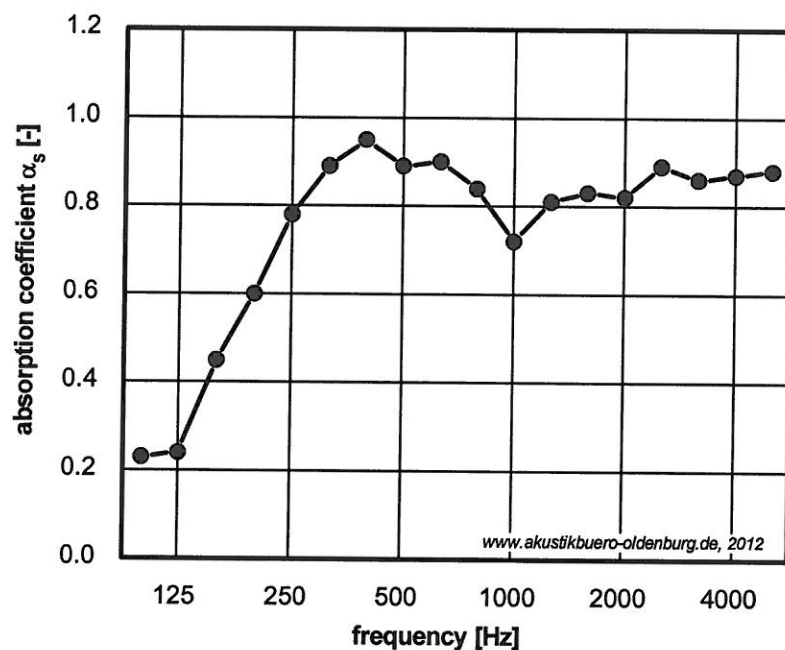
Assembly:

- BARRISOL® A15 Nanoperf
- 170 mm distance to the floor
- 40 mm acoustic fibre
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.23
125	0.24
160	0.45
200	0.60
250	0.78
315	0.89
400	0.95
500	0.89
630	0.90
800	0.84
1000	0.72
1250	0.81
1600	0.83
2000	0.82
2500	0.89
3150	0.86
4000	0.87
5000	0.88



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.30
250	0.75
500	0.90
1000	0.80
2000	0.85
4000	0.85

NRC = 0.80

SAA = 0.83

$\alpha_w = 0.85$

Sound Absorption Class B

Rev. chamber: ITAP GmbH

Date: 21.02.2012

Volume: 200 m³

Specimen size: 12 m²

Temperature: 12°C

Humidity: 55 %



Akustikbüro Oldenburg

Dr. Christian Nocke

M13 - Report No. 2012/0069

Oldenburg, August 2nd, 2012

Signature: